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Jeremy Wade* (jwade@uoregon.edu), University of Oregon, Department of Mathematics, Eugene, OR 97403. On the orthogonal expansion of functions on the cylinder.

We present results on the (c, δ) -summability of the orthogonal expansion of a continuous function on the cylinder, $B^d \times [-1, 1]^m$, in terms of multi-variable orthogonal polynomials. In addition, we will present results on a reconstruction algorithm for functions on $B^2 \times [-1, 1]$ from Radon projections. (Received September 16, 2008)